

## Claims

1. A method of producing honeycomb structure using a press and a die to form two metal plates that have hexagonal pegs protruding out on one side and applying welding material or some adhesive onto the hexagonal pegs and then joining the two formed metal plates by facing the protruding sides to each other.

2. The method of claim 1, wherein the pegs have different polygonal shapes such as triangular, square, and octagonal or even circular.

**AMENDED CLAIMS**

[received by the International Bureau on 28 December 2004 (28.12.04);  
original claims 1 and 2 amended (1 page)]

1(amended) A method of producing honeycomb structure which comprises shaping hexagonal cells consisting of hexagonal pegs having a predetermined distance from each other by using a mould and a press, applying a welding material or a strong adhesive onto the outer surface of the hexagonal pegs, overlapping two metal plates thus shaped from each other toward the protruded hexagonal peg whereby hexagonal pegs of one metal plate are engaged with the hexagonal pegs of other metal plate and thus hexagonal cells are continuously joined.

2(amended) The method according to claim 1, wherein said pegs are polygonal shape such as triangular, square, octagonal or circular shape.

### **Statement under Article 19(1)**

Claim 1 of the present application relates to a method of producing honeycomb structure which comprises shaping hexagonal cells consisting of hexagonal pegs having a predetermined distance from each other by using a mould and a press, applying a welding material or a strong adhesive onto the outer surface of the hexagonal pegs, overlapping two metal plates thus shaped from each other toward the protruded hexagonal peg whereby hexagonal pegs of one metal plate are engaged with the hexagonal pegs of other metal plate and thus hexagonal cells are continuously joined.

D1(JP1998-244518 A) is concerned with an extrusion molding die for a honeycomb structure which is built up of at least, a first part and a second part which can be separated from each other. When the first part and the second part are assembled into a single piece, continuous honeycomb cell holes with an identical diameter are formed from the back to the front of the honeycomb structure.

According to claim 1 of the present application, it is possible to fabricate a honeycomb structure by applying a strong adhesive onto the outer surface of the hexagonal pegs and then overlapping two metal plates from each other toward the protruded hexagonal peg, in which hexagonal cells are joined strongly from each other. On the contrary, D1 is merely to provide an extrusion molding die which can be easily cleaned without imposing strain thereon at the time of extrusion molding.

For the above reasons, the subject matter of claim 1 has an inventive step under PCT Article 33(3).